# PSEUDOCODE FOR CONVEYOT BELT AUTOMATION SYSTEM

This pseudocode describes a system for controlling the automated system which receives containers and moves them on through a couple of sensors, rejecting abnormal and excessive radiation from a container.

```
Sensor
        function detected(){
                check If a Container is on the Conveyor Belt now
                if there is
                        return 1
                else
                        return 0
        }
Sonar{
        function examine(){
                Check if container passes the conformity check
                If it passes
                        then return ok
                else
                        then return Defect
        end
        }
}
Manipulation Arm(name){
        function extend(){
                Extend the named arm
        }
        function retract(){
                Retract the named arm
        }
end
}
Radiation
        function detect(){
                return the value (0-99) from the radiation sensor after checking for leaks in
                the container.
        end
        }
```

**Conveyor Control**{

Start the conveyor

Function start(){

Set the container addition frequency to a number between 40 and 60secs

Add a container to the conveyor belt.

If function sensor detected returns 1,

examine the container with function sonar examine.

If function sonar examine returns ok

Then check the radiation level using function radiation detect to get the radiation level

if the radiation function return equal or less than 20, continue. Else call **function Manipulation arm extend** to extend the arm to direct container to quarantine. After 5 secs call the function **Manipulation arm retract** to retract the arm

Else **function sonar examine** returned defect. Call the **function Manipulation arm extend** to extend the arm and direct the container to the reject belt. After 5 secs call the function **Manipulation arm retract** to retract the arm

End

}

Function stop()

Stops the conveyor belt. Exits the system.

}

**Thoughts and Considerations**

- I have a proposed a minimum conveyor belt time frequency of 40 seconds to allow for the time checks and the extension and retraction of the manipulation arms.
- I have assumed that once the system/ conveyor belt starts then the sensors start running too